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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
GREY, CHRISTOPHER P	
ART UNIT	**PAPER NUMBER**
2616	

DATE MAILED: 06/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/055,336	GERAKOULIS ET AL.	
	Examiner	Art Unit	
	Christopher P. Grey	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 January 2002*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *12-15* is/are allowed.

6)☐ Claim(s) *1-10,16-18* is/are rejected.

7)☒ Claim(s) *1 and 17* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 1 and 17 are objected to because of the following informalities: The applicant claims that communication is performed without creating interference. The examiner asserts that interference may be minimized or suppressed, but technically can not be restricted from being created.

Applicant is urged to review and correct this claim in order to reflect a capable task being performed by the claimed subject matter

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 1-10 and 17 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. How interference is suppressed is critical or essential to the practice of the invention, but not included in the claim and is thus not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

The applicant discloses an interference suppression system and not creating interference as disclosed within the preamble and content of claim 1, however gives no means or method to do so.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 1-10 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the

invention. The applicant discloses an interference suppression system, however does not disclose any evidence to support how interference is suppressed.

4. Claim 1-10 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: a means or way by which interference is suppressed. Merely spreading data or having present a base station does not suppress interference.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claim 1 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Fu et al. (US 7035201), hereinafter referred to as Fu.

Claim 1 Fu discloses an in premises base station, the base station comprising an IS-OFDM transceiver (see title) for communicating with a plurality of in premises terminals without creating interference outside an in-premises perimeter by spreading of parallel data sub-streams (see fig 1 element 104 and fig 2 element 205).

Furthermore, Fu discloses eliminating intercarrier interference (col 14 lines 9-19).

Claim 18 Fu discloses the plurality of parallel data substreams being spread by an orthogonal binary code sequence (Col 5 lines 47-58).

6. Claim 16 is rejected under 35 U.S.C. 102(e) as being anticipated by Fu et al. (US 7035201), hereinafter referred to as Fu.

Claim 16 Agee discloses providing a local area networking service (see element 10 in fig 1).

Agee discloses providing wireless in premises distribution of at least one signal (see fig 1 and Col 8 lines 26-63).

Agee discloses providing in-premises wireless access and routing to the at least one external network (Col 8 lines 26-63), without creating interference outside of an in-premises perimeter by spreading a plurality of parallel data substreams (see fig 7A and Col 10 lines 21-67).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2-6 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fu (US 7035201) in view of Agee (US 6512737).

Claim 2 Fu does not specifically disclose receiving wired traffic from an extermal network and broadcasting the received wired traffic to the IT's within a home.

Agee discloses receiving wired traffic from an extermal network and broadcasting the received wired traffic to the IT's within a home (see fig 1 and Col 8 line26-Col 9 line 8).

It would have been obvious to one of the ordainry skill in the art at the time of the invention to combine the transceiver as disclosed by Fu within the base station as disclosed by Agee. The motivation for this combination is the fact that a transceiver performing similarly to the one disclosed by Fu exists within the base station disclosed within Agee. Furthermore, the transceiver allows the reception and transmission of data.

Claim 3 Fu does not specifically disclose receiving wireless communication from the IT's and routing the wireless communications from the Its to an external network.

Agee discloses receiving wireless communication from the IT's and routing the wireless communications from the Its to an external network (see fig 1 and Col 8 line26-Col 9 line 8).

It would have been obvious to one of the ordainry skill in the art at the time of the invention to combine the transceiver as disclosed by Fu within the base station as disclosed by Agee. The motivation for this combination is the fact that a transceiver performing similarly to the one disclosed by Fu exists within the base station disclosed within Agee. Furthermore, the transceiver allows the reception and transmission of data.

Claim 4 Fu does not specifically disclose the Its transmitting and receiving internal in-premises wireless communication between Its.

Agee discloses the Its transmitting and receiving internal in-premises wireless communication between Its.

It would have been obvious to one of the ordainry skill in the art at the time of the invention to combine the transceiver as disclosed by Fu within the base station as disclosed by Agee. The motivation for this combination is the fact that a transceiver performing similarly to the one disclosed by Fu exists within the base station disclosed within Agee. Furthermore, the transceiver allows the reception and transmission of data.

Claim 5 Fu does not specifically disclose an IS-OFDM UWB channel being separated into a plurality of groups, each group further comprising a plurality of bins.

Agee discloses an IS-OFDM UWB channel being separated into a plurality of groups, each group further comprising a plurality of bins (Col 14 lines 58-Col 15 line 5).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to combine the transceiver as disclosed by Fu within the base station as disclosed by Agee. The motivation for this combination is the fact that a transceiver performing similarly to the one disclosed by Fu exists within the base station disclosed within Agee. Furthermore, the transceiver allows the reception and transmission of data.

Claim 6 Fu does not specifically disclose one of the groups of bins being assigned to be a control group for carrying control messages between the IBS and the Its.

Agee discloses modulation and spreading involving a number of bins (see fig 13 and Col 17 lines 19-40). Agee also discloses communication between a number of remote terminal and the base station (see fig 1). The examiner asserts that any form of signaling may be deemed as equivalent to carrying control message between the base station and the IT's.

Claim 17 Fu does not specifically disclose the IS-OFDM system providing a local area networking services, wireless in-premises distribution of broadcast cable channels and in premises wireless access and routing to external networks.

Agee discloses the IS-OFDM system providing a local area networking services, wireless in-premises distribution of broadcast cable channels and in premises wireless access and routing to external networks (see fig 1 and Col 8 line 26-Col 9 line 8).

It would have been obvious to one of the ordainry skill in the art at the time of the invention to combine the transceiver as disclosed by Fu within the base station as disclosed by Agee. The motivation for this combination is the fact that a transceiver performing similarly to the one disclosed by Fu exists within the base station disclosed within Agee. Furthermore, the transceiver allows the reception and transmission of data.

7. Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fu (US 7035201) in view of Agee (US 6512737) in further view of Dam et al. (US 6385457).

Claim 7 The combined teachings of Fu and Agee do not specifically disclose each IT sending a request to transmit data to the IBS via said control group before attempting to transmit any data.

Dam discloses each IT sending a request to transmit data to the IBS via said control group before attempting to transmit any data (see fig 4a and Col 14 lines 54-67).

It would have been obvious to one of the ordinary skill in the art at the time of the invention that the request and granting procedure is applicable in the OFDM environment as disclosed in Col 14,

therefore the access technique descibred in fig 4a is applicable within the OFDM system as disclosed within the combination of Fu and Agee.

Claim 8 The combined teaching of Fu and Agee do not specifically disclose the IBS keeping a record of on going transmission and available bandwidth.

Dam discloses the IBS keeping a record of on going transmission and available bandwidth (see fig 4a and Col 14 lines 54-67).

It would have been obvious to one of the ordinary skill in the art at the time of the invention that the request and granting procedure is applicable in the OFDM environment as disclosed in Col 14, therefore the access technique descibred in fig 4a is applicable within the OFDM system as disclosed within the combination of Fu and Agee.

Claim 9 The combined teaching of Fu and Agee do not specifically disclose based on recorded information, responding to the request to transmit with one of a message granting the request to transmit and blocking the request to transmit.

Dam discloses based on recorded information, responding to the request to transmit with one of a message granting the request to transmit and blocking the request to transmit (see figs 4 a and b and Col 7 lines 9-46). The request is not further transmitted, thus blocked.

It would have been obvious to one of the ordinary skill in the art at the time of the invention that the request and granting procedure is applicable in the OFDM environment as disclosed in Col 14, therefore the access technique descibred in fig 4a is applicable within the OFDM system as disclosed within the combination of Fu and Agee.

Claim 10 The combined teachings of Fu and Agee do not specifically disclose the message granting request to transmit indicating the group of bins in which the IT may transmit data.

Dam discloses the message granting request to transmit indicating the group of bins in which the IT may transmit data (element A11 in fig 4a).

It would have been obvious to one of the ordinary skill in the art at the time of the invention that the request and granting procedure is applicable in the OFDM environment as disclosed in Col 14,

therefore the access technique descibred in fig 4a is applicable within the OFDM system as disclosed within the combination of Fu and Agee.

Allowable Subject Matter

8. Claim 12-15 are allowed.

Response to Arguments

9. Applicant's arguments filed on December 27, 2006 have been fully considered but they are not persuasive.

(a) The applicant argued that the cited art does not disclose the applicant claimed, "without creating interference outside an inpremises perimeter".

The examiner maintains that the limitation, "not creating outside interference", is an impossible task to accomplish. Li discloses reducing interference (see Col 6 lines 18-29). Interference outside an in-premise may be reduced or suppressed, but no matter what measures are taken, it is not feasible to not create outside interference. Interference may be caused by several different factors, and there is no way to eliminate all of those possible factors.

(b) The applicant argued that there is no motivation to combine Li and Tong, however gives no clear indication why the provided motivation is not substantial. In response the examiner makes reference to the rejection of claim 1 for a motivation to combine.

(c) The applicant argued that Tong teaches away from avoiding interference, however, the examiner asserts that because completely avoiding interference is not feasible, these arguments have limited consequence. Furthermore, Tong is only used to show that interference reduction between different cells is commonly defined within the art.

(d) Applicant's arguments with respect to claim 1 pertaining to the amended subject matter have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher P. Grey whose telephone number is (571)272-3160. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (571)272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Christopher Grey
Examiner
Art Unit 2616

6/23/06

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